



Final Report - Safe Routes To School Denver Osteopathic Foundation & Denver Public School (DPS) 2007-2008

I. Overall Background

The Denver Osteopathic Foundation partnered with DPS Risk Management for Colorado Safe Routes To School. The Denver Osteopathic Foundation (DOF) is a 501 (c) 3 organization which provides injury prevention programs for local schools, as well as Continuing Medical Education (CME) for physicians. DOF has worked with DPS on pedestrian safety, child passenger safety, Health Day and fire prevention education issues for many years. DPS worked with DOF in the identification of four elementary schools of both high need and those schools who were interested in the Safe Routes To School and who could benefit from a pedestrian and bicycle safety program: Edison Elementary, Force Elementary, Slavens, and Sabin Elementary. DOF also worked with the Denver Police Department, DPS Safety and Security, DPS Transportation, the Colorado Department of Public Health & Education (CDPHE) to help facilitate the Safe Routes To School program.

- I. Background:** Describes school specific facts and concerns.
- II. Pre-Data Collection:** Summarizes pre-intervention data collected from the Parent Survey and Arrival and Departure Survey.
- III. Intervention:** Outlines Denver Osteopathic Foundation (DOF) presentations to students.
- IV. Strategies for Improvement:** Outlines School Traffic Safety Committee (STSC) strategies for (a) improving traffic and safety concerns and (b) increasing the number of students who walk and bike to and from school.
- V. Post Data Collection:** Summarizes post-intervention data collected from the Parent Survey and Arrival and Departure Survey.
- VI. Conclusion:** Brief summary of observations and outcomes.

II. School Backgrounds

- a) **Edison Elementary** is located at 3350 Quitman Street, at 33rd Ave. and 35th Ave. and Quitman Street and Perry. There are 518 students in Edison in ECE-5th grade. 3.85% of the students ride the bus, 75.92% of the students are driven to school, and only 12.81% of the students walk or ride their bike to school. According to Parent Survey data, 56% of students live within a 1 mile radius of the school. The School Traffic

Safety Committee (STSC) members completed the Site Assessments and the following information was collected:

- The major streets around the perimeter of the school are: 33rd, 35th Quitman and Perry.
- There are three drop-off and pick-up zones for the parents and children.
- There are two buses which park along Perry Street in back of the school and one handicapped bus.
- There is a Hug & Drop Zone in the staff parking lot on the north side of the school. There have been some problems here but usually this drop-off area functions smoothly with little or no impact on traffic or parking.
- There is not adequate bike storage.
- There are cars parked blocking crosswalks.
- There are crosswalks on each of the corners of the school.

Parents drop-off and pick-up their children on Quitman Street in front of the school and along Perry, behind the school. The Quitman Street drop-off/pick-up zone is designed as a loading zone, where parents are not to exit or park their vehicles in order to drop-off or pick-up children. Parents and staff are concerned with the current use of this continuous lane, sighting concern with parents double parking, stopping in the middle of Quitman Street and having the children crossing the street and walking in between cars.

Additional concerns have been raised regarding parents making illegal U-turns on Quitman and Perry and blocking these intersections when dropping-off or picking-up children. The bottleneck caused by the previously sighted concerns is forcing, or at least contributing to, children jay walking and crossing the street between buses and cars on Perry which are extremely dangerous due to poor visibility. Edison does not have a crossing guard but is in need of one.

There is a need for better signage and painting on the curbs in the school bus loading zone, better marking and no stopping zones on W. 33rd at Perry and Quitman. Painting the sidewalk curb red and yellow could help the situation.

b) **Force Elementary** is located at 1550 S. Wolff Street at Florida Ave, Wolff, Utica and Iowa Streets in the Denver Public School district in Denver, Colorado. There are 548 students in Force in ECE-5th grade. 9.4% of the students ride the bus, 49.82% of the students are driven to school, and 31.76% of the students walk or ride their bike to school. 67% of the students live within a 1-mile radius of the school. The School Traffic Safety Committee (STSC) members completed the Site Assessment around the school. The following information was collected based on the Site Assessment:

- The major streets around the perimeter of the school are: W. Florida Ave., Wolff Street, Utica and Iowa Streets. The school is just south of W. Florida Ave., which is an extremely busy street, as it is used as a thorough-fare.
- Parents often park on Wolff Street and send their children running across the street through traffic and the parked school bus and daycare vans. The school bus

and daycare vans also create a visual and physical block to motorists and pedestrians, which complicate the problem.

- Parents are double parking in front of the school buses as well. Children are darting through parked cars.
- The bus and daycare vans are parked along Wolff Street in front of the school. This is where most of the children exit the building.
- Parents are also using the staff parking lot as a drop-off zone.
- There is inadequate bike storage on the playground with no bike racks.
- On the day of the Site Assessment (9-17), we observed a photo radar van writing ~50 tickets within one hour's time.

c) **Sabin Elementary** is located at 3050 S. Vrain Street at Dartmouth Ave., Cornell Avenue and Vrain & Raleigh Streets. There are 580 students in ECE-6th grade. 8.63% of the students ride the bus, 58.43% of the students are driven to school, and 20.66% of the students walk or ride their bike to school. According to Parent Survey data, 54% of students live within a 1 mile radius of the school. The School Traffic Safety Committee (STSC) members completed the Site Assessments and the following information was collected:

- The major streets around the perimeter of the school are: Dartmouth and Cornell Avenues and Vrain and Raleigh Streets.
- There are two drop-off and pick-up zones for the parents and children; one on Cornell Avenue and one on Dartmouth Avenue.
- There are 12-14 buses that park along Dartmouth Avenue, Vrain Street and Cornell Avenue
- There is some bike storage, but is very limited
- There is a crossing guard on Dartmouth, as well as a traffic light in the middle of the block.
- The school does not encourage biking to school because of safety issues and lack of enough bike racks.
- The speed limit signs do not reflect start and finish times of the school.

50% of the students choice into Sabin; therefore they live outside the 1-mile radius, but DPS does not provide transportation for choice students. There is a need for increased school zone signage, as well as increased police presence during high traffic times. Sabin has two older bike racks. Parents often do not follow the signs on Dartmouth for School Bus Loading Only and Passenger Loading Only. Parents double park and stop mid-block on Dartmouth with their children crossing between cars and buses.

d) **Slavens** is located at 3000 S. Clayton Street at Dartmouth, Dallas Clayton and Cornell Streets. Slavens is a K-8 school with 330 students in K - 5th grade. 2.76 % of the students ride the bus, 56.63% of the students are driven to school, and only 28.13% of the students walk or ride their bike to school. According to Parent Survey data, 83% of students live within a 1 mile radius of the school. The School Traffic Safety Committee (STSC) members completed the Site Assessments and the following information was collected:

- The major streets around the perimeter of the school are: E. Dartmouth, Dallas, S. Clayton and Cornell Streets.
- There are two drop-off and pick-up zones for the parents and children.
- The buses park along Clayton Street with 4 buses that drop-off and pick-up every day.
- There are numerous walkers and riders/drivers that intersect at Dallas & Cornell.
- There is adequate bike storage with 6 bike racks that hold ~ 40 bikes.
- There is a need for crossing guards.
- There is a crosswalk at the corner of Dallas & Clayton, Dartmouth & Clayton and on Dallas & Cornell, and Dallas and Clayton behind the school.
- Drivers are also parking in the crosswalks on Cornell St. where drivers cannot see pedestrians crossing the street.

Dartmouth is a major thorough-fare and added traffic congestion before and after school creates serious safety concerns. Dartmouth also has a high volume of commercial traffic. Parents are also double parking and stopping mid block on Dartmouth and Clayton Streets. Children are running between cars and buses. Some of the signs are covered by foliage on Dallas and Clayton streets which limits visibility.

III. Pre-Data Collection for all Schools

- a) **Edison Elementary:** All of the forms had to be translated into Spanish as there are approximately 50 Spanish speaking students. The Student Arrival And Departure Tally Sheets were completed by all of the teachers and this data indicates:
- 75.92% of the students are driven to/from school by their parents .
 - 3.85% of the students ride the bus school to/from school.
 - 5.18% of the students are driven to/from school through a carpool.
 - 12.27% of the students walk to/from school.
 - .54% of the students bike to/from school.

A total of 155 parents completed the “Parent Survey”. Following is a summary of the data:

- 56% of the students live within a 1-mile radius of the school.
- 20% living less than ¼ mile of the school.
- 69% of the children are driven to and from school, which correlates with the Student Arrival and Departure Tally Sheets.
- 76% of the parents reported that it takes less than 10 minutes to get to/from school.
- 37% reported their child has asked to walk or bike to or from school.
- 28% of the parents reported they would not feel comfortable letting their child walk/bike to school at any grade.
- Parents were concerned with the following issues which would affect their decision to allow, or not allow, their child to walk/bike to/from school:
 - distance – 53%
 - time – 31%

- speed of traffic along route – 49%
- amount of traffic along route – 50%
- general safety along route – 51%
- concerns about bullies, kidnapping or assault, animals, etc. – 65%
- 67% reported the school neither encourages or discourages walking and biking to/from school.
- 64% reported walking or biking to/from school is perceived as very fun or fun.
- 81% reported walking or biking to/from school is perceived as very healthy or healthy.

b) **Force Elementary:** All of the forms had to be translated into Spanish as there are approximately 250 Spanish speaking students. The Student Arrival And Departure Tally Sheets were completed by all of the teachers.

- 49.82% of the students are driven to/from school.
- 31.07% of the students walk to/from school.
- 9.40% of students ride the bus to/from school.
- 5.85% of the students are driven to/from school through a carpool.
- .69% of the students bike to/from school.

A total of 207 parents completed the “Parent Survey”. The following data was collected from the Parent Surveys:

- 68% of the students live within a 1-mile radius of the school.
- 34% living less than ¼ mile of the school.
- 55% of the children are driven to and from school, which correlates with the Student Arrival and Departure Tally Sheets.
- 65% of the parents said that it takes less than 10 minutes to get to/from school.
- 48% said their child has asked to walk or bike to or from school.
- 40% of the parents said that they would not feel comfortable letting their child walk/bike to school at any grade.
- Parents were concerned about the following issues which would affect their decision to allow, or not allow, their child to walk/bike to/from school:
 - distance – 39%
 - time – 14%
 - speed of traffic along route – 35%
 - amount of traffic along route – 27%
 - general safety along route – 34%
 - concerns about bullies, kidnapping or assault, animals, etc. – 54%
- 30% - said that the school neither encourages nor discourages walking and biking to/from school.
- 75% said that walking or biking to/from school is very fun or fun.
- 91% said that is either very healthy or healthy.

c) **Sabin Elementary:** All of the forms had to be translated into Spanish as there are approximately 150 Spanish speaking students. The Student Arrival and Departure Tally Sheets were completed by all of the teachers and this data indicates:

- 58.43% of the students are driven to/from school by their parents.
- 8.63% of the students ride the bus school to/from school.
- 7.56% of the students are driven to/from school through a carpool.
- 20.46% of the students walk to/from school.
- .20% of the students bike to/from school.

A total of 146 parents completed the “Parent Survey.” Following is a summary of the data:

- 54% of the students live within a 1-mile radius of the school.
- 23% living less than ¼ mile of the school.
- 78% of the children are driven to and from school, which correlates with the Student Arrival and Departure Tally Sheets.
- 80% of the parents reported that it takes less than 10 minutes to get to/from school.
- 27% reported their child has asked to walk or bike to or from school.
- 51% of the parents reported they would not feel comfortable letting their child walk/bike to school at any grade.
- Parents were concerned with the following issues which would affect their decision to allow, or not allow, their child to walk/bike to/from school:
 - distance –58%
 - time –20%
 - speed of traffic along route –52%
 - amount of traffic along route –44%
 - general safety along route –47%
 - concerns about bullies, kidnapping or assault, animals, etc. –72%
- 64% reported the school neither encourages or discourages walking and biking to/from school.
- 56% reported walking or biking to/from school is perceived as very fun or fun.
- 85% reported walking or biking to/from school is perceived as very healthy or healthy.

d) **Slavens:** The Student Arrival And Departure Tally Sheets were completed by all of the teachers and this data indicates:

- 56.63% of the students are driven to/from school by their parents
- 2.76% of the students ride the bus school to/from school
- 10.5% of the students are driven to/from school through a carpool
- 19.92% of the students walk to/from school
- 8.22% of the students bike to/from school

A total of 114 parents completed the “Parent Survey”. Following is a summary of the data:

- 83% of the students live within a 1-mile radius of the school

- 32% living less than ¼ mile of the school
- 47% of the children are driven to and from school, which correlates with the Student Arrival and Departure Tally Sheets
- 83% of the parents reported that it takes less than 10 minutes to get to/from school
- 54% reported their child has asked to walk or bike to or from school
- 17% of the parents reported they would not feel comfortable letting their child walk/bike to school at any grade
- Parents were concerned with the following issues which would affect their decision to allow, or not allow, their child to walk/bike to/from school:
 - distance – 48%
 - time – 22%
 - speed of traffic along route – 57%
 - amount of traffic along route – 55%
 - general safety along route – 44%
 - concerns about bullies, kidnapping or assault, animals, etc. – 37%
- 61% reported the school neither encourages or discourages walking and biking to/from school
- 84% reported walking or biking to/from school is perceived as very fun or fun
- 95% reported walking or biking to/from school is perceived as very healthy or healthy

IV. Intervention/Approach

Pedestrian education presentations took place at each school including ECE (Pre-K), Kindergarten, and 1st and 2nd grade classrooms. The pedestrian safety presentations were given by off-duty firefighter/paramedics from Cunningham Fire District. The presentations last 30-minutes, beginning with a pre-test, followed by the training, and concluding with a post-test. Following is an outline of the Pedestrian Safety program:

- Students are given a simple pre-test. Children are asked, “What is the FIRST thing you need to do before crossing the street.” Children are not lead to answers by the instructor. As participants share their opinions, for example, Stop, the instructor will ask the class, “How many of you think Stop is the first thing you should do?” Participants are asked to raise their hand and instructor counts the number of each response.
- Via the use of various props participants are taught the correct order of tasks they must perform in order to safely cross the street:
 1. STOP before crossing the street.
 2. LOOK LEFT, RIGHT, & LEFT again.
 3. LISTEN for cars before crossing the street.
 4. HOLD an adults hand.
- The learning of STOP, LOOK, LISTEN is supported by the use of various visual aids and interactive activities including:
 - Colorful hand props with images of stop signs, traffic lights, pedestrian crossing, hand gesturing “stop,” and right/left.
 - STOP, LOOK & LISTEN song to the Row, Row, Row Your Boat tune – during this exercise, the children are standing and using hand motions and their feet to help them learn and remember STOP, LOOK, LISTEN

- School specific storyboard focusing on the school and the streets around each school.
- Upon the conclusion of training, a post-test is conducted in the same manner as described for the pre-test.
- Age appropriate “prizes” (safety tiger key chains) are given to participants to reward and remind them of the safety lesson learned. ECE and Kindergarten students are given stop sign zipper pulls and 1st and 2nd grade students are given red bracelets that read, STOP, LOOK, LISTEN

The Pedestrian presentations took place on the following dates:

- The pedestrian education presentations took place at **Edison** Monday, February 25th and Tuesday, February 26th. Presentations were conducted in 13 classes (totaling 302 students), including ECE, Kindergarten, and 1st and 2nd grade classrooms. **During the Pre-Test**, only **88%** of children were able identify STOP as the correct answer. **97.2%** of the children answered correctly with STOP being the first thing they must do to safely cross a street for the **Post-Test**.
- The pedestrian education presentations took place at **Force** on Friday, January 11th and Thursday, January 17th. Presentations were conducted in 15 classes (totaling 329 students), including ECE, Kindergarten, and 1st and 2nd grade classrooms. **During the Pre-Test**, only **47.6%** of children were able identify STOP as the correct answer. **100%** of the children answered correctly with STOP being the first thing they must do to safely cross a street for the **Post-Test**.
- The pedestrian education presentations took place at **Sabin** on Thursday, February 7th. Presentations were conducted in 16 classes (totaling 320 students), including ECE, Kindergarten, and 1st and 2nd grade classrooms. **During the Pre-Test**, only **63.3%** of children were able identify STOP as the correct answer. **100%** of the children answered correctly with STOP being the first thing they must do to safely cross a street for the **Post-Test**.
- The pedestrian education presentations took place at **Slavens** on Thursday, January 31st. Presentations were conducted in 6 classes (totaling 163 students), including Kindergarten, and 1st and 2nd grade classrooms. **During the Pre-Test**, only **78.2%** of children were able identify STOP as the correct answer. **96.2%** of the children answered correctly with STOP being the first thing they must do to safely cross a street.

Pedestrian Safety Teacher Survey Results

1. Edison Elementary

- 92.9% of the teachers rated the overall quality of the pedestrian presentations as excellent
- 7.1% of the teachers rated the overall quality of the pedestrian presentations as good

- 100% of the teachers rated the DOF presentation as excellent.
- 71.4% of the teachers rated the classroom activities as excellent.
- 92.9% of the teachers rated DOF as excellent in adequately addressing bicycle/pedestrian safety concerns.

2. Force Elementary

- 76.9% of the teachers rated the overall quality of the pedestrian presentations as excellent.
- 15.4% of the teachers rated the overall quality of the pedestrian presentations as good.
- 84.6% of the teachers rated the DOF presentation as excellent.
- 7.7% of the teachers rated the DOF presentation as good.
- 84.6% of the teachers rated DOF as excellent in adequately addressing bicycle/pedestrian safety concerns.
- 7.7% of the teachers rated DOF as good in adequately addressing bicycle/pedestrian safety concerns.

3. Sabin Elementary

- 64.3% of the teachers rated the overall quality of the pedestrian presentations as excellent.
- 35.7% of the teachers rated the overall quality of the pedestrian presentations as good.
- 71.4% of the teachers rated the DOF presentation as excellent.
- 28.6% of the teachers rated the DOF presentation as good.
- 78.6% of the teachers rated DOF as excellent in adequately addressing bicycle/pedestrian safety concerns.
- 21.4% of the teachers rated DOF as good in adequately addressing bicycle/pedestrian safety concerns.

4. Slavens

- 100% of the teachers rated the overall quality of the pedestrian presentations as excellent.
- 100% of the teachers rated the DOF presentation as excellent.
- 100% of the teachers rated DOF as excellent in adequately addressing bicycle/pedestrian safety concerns.

Skills On Wheels Workshops

The Skills On Wheels workshop took place at **Edison** on Friday, October 5th. Trevor Madden, a League of American Bicyclist Certified Instructor and USA Cycling Level III Coach conducted the Skills On Wheels workshop. The power point presentation was held in the auditorium from 2:30 – 3:30 p.m. for all 3rd-5th grade students (**250 students**). Every child received a “Ride Right” bracelet, as well as the Skills On Wheels Take Home Bicycle Lesson. The skills portion of the workshop was held on the black top behind the school from 3:30-4:30 p.m. **20** students participated in the actual skills portion of the

workshop. Each child who participated had a signed bike consent form, a helmet and a bike. DOF also gave **three students helmets** through the Earn A Helmet program – a program in which children who cannot afford a helmet can earn one through their participation in the Skills On Wheels program. The school announced and promoted the “Skills On Wheels” workshop through announcements and flyers. Each child who participated received a “Ride Right” bracelet to help them remember to ride their bikes on the right side of the street.

The Pre & Post tests for the Power Point Presentation are as follows. Thirty (30) 3rd graders scored 100% on the pre-test, and 45 3rd graders scored 100% on the post test. Twenty-four (24) 4th graders scored 100% on the pre-test, and 48 4th graders scored 100% on the post-test. Eighteen (18) 5th graders scored 100% on the pre-test, and 30 5th graders scored 100% on the post-test. After listening to the presentation the number of students who scored 100% nearly doubled at all grades, except for the 3rd graders who performed very well on the pre-test with 15 more third graders scored 100% on the post-test. . The pre-tests of the students indicated that on average **64.71% of 3rd-5th graders achieved a 90% or higher.** After the power point presentation, post-test results indicated that on average, **82.27% of 3rd-5th graders achieved a 90% or higher.**

The Skills On Wheels workshop took place at **Force** on Friday, October 12th. Trevor Madden a League of American Bicyclist Certified Instructor and USA Cycling Level III Coach conducted the Skills On Wheels workshop. The power point presentation was held in the auditorium from 1:10 – 2:10 p.m. for all 3rd-5th grade students (217 students). The skills portion of the workshop was held on the black top behind the school from 2:10 – 3:10 p.m. **30 students** participated in the actual skills portion of the workshop. Each child who participated had a signed bike consent form, a helmet and a bike. DOF also gave **28 students helmets** through the Earn A Helmet program – a program in which children who cannot afford a helmet can earn one through their participation in the Skills On Wheels program. Each child who participated received a “Ride Right” bracelet to help them remember to ride their bikes on the right side of the street. DOF also gave the students **copies of the Take Home Bike Rodeo forms**; approximately 50 were returned.

The power point presentation bicycle skills workshop targeted 3rd – 5th grade students. The primary objective is to learn safe riding skills associated with being viewed as a transportation vehicle – including road signs and hand signals. There were not any 3rd graders who scored 100% on the pre-test, but 28 3rd graders scored 100% on the post-test. Three (3) 4th graders scored 100% on the pre-test, and 30 4th graders scored 100% on the post-test. Seven (7) 5th graders scored 100% on the pre-test, and 34 5th graders scored 100% on the post-test. Pre-test of the students indicated that on average 24.76% of 3rd-5th graders achieved a 90% or higher, and **93.20% achieved a 70% or higher.** After the power point presentation, post-test results indicated that on average, **74.77% of 3rd-5th graders achieved a 90% or higher, and 91.2% of 3rd-5th graders achieved a 70% or higher.**

Following the bicycle classroom presentation students were challenged to demonstrate their skills on a course created outside the school. Students required frequent promoting

by course preceptors in order to successfully execute the skills (i.e. hand signals, lane change) properly. Students need repetition and modeling to translate the information learned into practiced behavior. That is why we recommend that students work at home with their parents to develop more skill. A Bicycle Skills Training Workbook was provided to students in English and Spanish. Practicing bicycle skills at home with parents gives the students more confidence in their ability and parent's reassurance that their child can operate a bicycle safely.

The Skills On Wheels workshop took place at **Sabin** on Friday, September 28th. Trevor Madden a League of American Bicyclist Certified Instructor and USA Cycling Level III Coach conducted the Skills On Wheels workshop. The power point presentation for 3rd – 5th graders was held in the auditorium from 1-2 p.m. for 276 students. The skills portion of the workshop was held on the black top behind the school from 2-3 p.m. **Twenty-five (25) students** participated in the actual skills portion of the workshop. DOF also gave **10 students helmets** through the Earn A Helmet program – a program in which children who cannot afford a helmet can earn one through their participation in the Skills On Wheels program. Each child who participated had a signed bike consent form, a helmet and a bike. Each child who participated received a “Ride Right” bracelet to help them remember to ride their bikes on the right side of the street.

The Pre & Post tests for the Power Point Presentation are as follows: Nine (9) 3rd graders scored 100% on the pre-test, and eleven (11) 3rd graders scored 100% on the post-test. Twenty-one (21) 4th graders scored 100% on the pre-test, and 34 4th graders scored 100% on the post-test. Thirteen (13) 5th graders scored 100% on the pre-test, and 32 5th graders scored 100% on the post-test. The pre-tests of the students indicated that on average **20.28% of 3rd-5th graders achieved a 90% or higher**, and 79.72% of 3rd-5th graders achieved a 70% or higher. After the power point presentation, post-test results indicated that on average, 36.15% of 3rd-5th graders achieved a 90% or higher, and **84.51% of 3rd-5th graders achieved a 70% or higher**.

The Skills On Wheels workshop took place at **Slavens** on Friday, April 11, 2008. Trevor Madden a League of American Bicyclist Certified Instructor and USA Cycling Level III Coach conducted the Skills On Wheels workshop. The power point presentation was held in the auditorium from 1:45 – 2:45 p.m. for 167 3rd-5th grade students. The skills portion of the workshop was held on the black top behind the school from 3:15 – 4:15 p.m. Ten (10) students participated in the actual skills portion of the workshop. They were anticipating 20-25 kids participating in the skills portion of the workshop, but due to the weather there were fewer participants. It was extremely cold and windy that day. We already had rescheduled once, and decided to go ahead with the workshop, despite the weather. Each child who participated had a signed bike consent form, a helmet and a bike. Each child received a Ride Right wrist band. All of the students were sent home with the Take Home Bicycle Skills on Wheels booklets as well.

The Pre & Post test for the Power Point Presentation are as follow: Twenty (20) 3rd graders scored 100% on the pre-test, and 32 3rd graders scored 100% on the post-test. Twenty-three (23) 4th graders scored 100% on the pre-test, and 32 4th graders scored

100% on the post-test. Thirty-two (32) 5th graders scored 100% on the pre-test, and 45 5th graders scored 100% on the post-test. The pre-tests of the students indicated that on average 52.08% of 3rd-5th graders achieved a 90% or higher, and 95.83% of 3rd-5th graders achieved a 70% or higher. After the power point presentation, post-test results indicated that on average, **75.17% of 3rd-5th graders achieved a 90% or higher, and 100% of 3rd-5th graders achieved a 70% or higher.**

Newsletter

DOF also created a newsletter which was sent home to the parents at each school. The newsletter was from the principal and included the following:

- A description of the program (Safe Routes To School)
- Information promoting walking/biking to school
- a brief description of the pre-data survey information, the interventions; pedestrian and bicycle programs and results
- Looking Forward to what the school can do
- Walk 'N Roll Wednesdays
- Calendar of Events – for April/May

Edison promoted the “Edison Mentors Pancake Breakfast and Bicycle Extravaganza”, sponsored by Whole Foods and Denver Police Department in their newsletter as well.

Force had Walk 'N Roll Wednesdays on April 9, April 23rd, April 30th and May 7th. (April 16th was cancelled due to inclement weather – it was rescheduled to May 7th). Force promoted it in a take home newsletter, flyer and a banner that DOF made for Force. DOF provided 1200 giveaways for Walk 'N Roll Wednesdays; pencils, whistles, bracelets and water bottles. Each week, teachers and off-duty firefighters/paramedics gave out 300 incentives. It was a huge success, as there weren't any incentives left. Bus riders were invited to walk a victory lap at the school led by Force staff.

Sabin promoted safety information: “Walking Through the Years” brochures, DPS Safety bookmarks, Safe Routes To School newsletters, Sabin's Traffic and Parking Maps and parent sign-up for the School Traffic Safety Committee at their Field Day in May.

Slavens promoted the Skills On Wheels Workshop (April 11th) in their newsletter which was sent home with all students, as well as being available on-line.

V. Post-Data Collection for all Schools

a) Edison Elementary: The Student Arrival And Departure Tally Sheets were completed by all of the teachers and this data indicates:

- 81.24% of the students are driven to/from school by their parents.
- 2.63% of the students ride the bus school to/from school.
- 4.18% of the students are driven to/from school through a carpool.
- 8.24% of the students walk to/from school.
- .84% of the students bike to/from school.

A total of 60 parents completed the “Parent Survey”. Following is a summary of the data:

- 56% of the students live within a 1-mile radius of the school.
- 23% living less than ¼ mile of the school.
- 75% of the children are driven to and from school, which loosely correlates with the Student Arrival and Departure Tally Sheets.
- 81% of the parents reported that it takes less than 10 minutes to get to/from school
- 52% reported their child has asked to walk or bike to or from school.
- 28% of the parents reported they would not feel comfortable letting their child walk/bike to school at any grade.
- Parents were concerned with the following issues which would affect their decision to allow, or not allow, their child to walk/bike to/from school:
 - distance – 45%
 - time – 37%
 - speed of traffic along route – 47%
 - amount of traffic along route – 48%
 - general safety along route – 37%
 - concerns about bullies, kidnapping or assault, animals, etc. – 58%
- 58% reported the school neither encourages or discourages walking and biking to/from school.
- 75% reported walking or biking to/from school is perceived as very fun or fun.
- 87% reported walking or biking to/from school is perceived as very healthy or healthy.

b) **Force Elementary:** All of the forms had to be translated into Spanish. The Student Arrival And Departure Tally Sheets were completed by all of the teachers.

- 55.56% of the students are driven to/from school
- 29.2% of the students walk to/from school
- 10.79% of students ride the bus to/from school
- 5.92% of the students are driven to/from school through a carpool
- 1.65% of the students bike to/from school

A total of 72 parents completed the “Parent Survey”. The following data was collected from the Parent Surveys:

- 63% of the students live within a 1-mile radius of the school,
- 39% living less than ¼ mile of the school.
- 53% of the children are driven to and from school, which correlates with the Student Arrival and Departure Tally Sheets.
- 71% of the parents said that it takes less than 10 minutes to get to/from school.
- 65% said their child has asked to walk or bike to or from school.
- 28% of the parents said that they would not feel comfortable letting their child walk/bike to school at any grade.

- Parents were concerned about the following issues which would affect their decision to allow, or not allow, their child to walk/bike to/from school:
 - distance – 26%
 - time – 10%
 - speed of traffic along route – 42%
 - amount of traffic along route – 28%
 - general safety along route – 29%
 - concerns about bullies, kidnapping or assault, animals, etc. – 46%
- 17% reported that the school neither encourages nor discourages walking and biking to/from school.
- 75% reported walking or biking to/from school is perceived as very fun or fun.
- 94% reported walking or biking to/from school is perceived as very healthy or healthy.

c) Sabin Elementary: The Student Arrival And Departure Tally Sheets were completed by all of the teachers and this data indicates:

- 63.33% of the students are driven to/from school by their parents.
- 19.17% of the students ride the bus school to/from school.
- 2.17% of the students are driven to/from school through a carpool.
- 10.36% of the students walk to/from school.
- .14% of the students bike to/from school.

A total of 40 parents completed the “Parent Survey.” Following is a summary of the data:

- 56% of the students live within a 1-mile radius of the school.
- 28% living less than ¼ mile of the school.
- 70% of the children are driven to and from school, which loosely correlates with the Student Arrival and Departure Tally Sheets.
- 75% of the parents reported that it takes less than 10 minutes to get to/from school.
- 35% reported their child has asked to walk or bike to or from school.
- 38% of the parents reported they would not feel comfortable letting their child walk/bike to school at any grade.
- Parents were concerned with the following issues which would affect their decision to allow, or not allow, their child to walk/bike to/from school:
 - distance – 35%
 - time – 25%
 - speed of traffic along route – 45%
 - amount of traffic along route – 38%
 - general safety along route – 43%
 - concerns about bullies, kidnapping or assault, animals, etc. – 78%
- 38% reported the school neither encourages or discourages walking and biking to/from school.
- 48% reported walking or biking to/from school is perceived as very fun or fun.
- 68% reported walking or biking to/from school is perceived as very healthy or healthy.

d) **Slavens:** The Student Arrival And Departure Tally Sheets were completed by all of the teachers and this data indicates:

- 59.25% of the students are driven to/from school by their parents .
- 3.96% of the students ride the bus school to/from school.
- 11.29% of the students are driven to/from school through a carpool.
- 23.84% of the students walk to/from school.
- 8.19% of the students bike to/from school.

A total of 57 parents completed the “Parent Survey”. Following is a summary of the data:

- 80% of the students live within a 1-mile radius of the school.
- 16% living less than ¼ mile of the school.
- 53% of the children are driven to and from school, which loosely correlates with the Student Arrival and Departure Tally Sheets.
- 86% of the parents reported that it takes less than 10 minutes to get to/from school
- 68% reported their child has asked to walk or bike to or from school.
- 18% of the parents reported they would not feel comfortable letting their child walk/bike to school at any grade.
- Parents were concerned with the following issues which would affect their decision to allow, or not allow, their child to walk/bike to/from school:
 - distance – 32%
 - time – 28%
 - speed of traffic along route – 40%
 - amount of traffic along route – 46 %
 - general safety along route – 37%
 - concerns about bullies, kidnapping or assault, animals, etc. – 26%
- 51% reported the school neither encourages or discourages walking and biking to/from school.
- 84% reported walking or biking to/from school is perceived as very fun or fun.
- 97% reported walking or biking to/from school is perceived as very healthy or healthy.

VI. Strategies for improvement and conclusions

Edison – The STSC meetings, the PTA and parents became involved in the discussions of increasing the number of students walking and biking to school. As a result of the Site Assessment(s) and STSC meetings, it was determined that Edison needed bike racks, as well as crossing guards. Trying to hire a crossing guard(s) has been a challenge, as no one has stepped up to take the position. It is often challenging to find someone to take a job with one hour in the morning and one hour after school. They are looking into the possibility of a job share and possibly parent volunteers. They will be talking to DPS Safety and Security about the possibility of parent volunteers. In terms of signage around the school; they would like to possibly have a marquis. This will not be possible as Edison is designated as a historic site. They have however been able to purchase four

bike racks (holding ~40 bikes) with the help of parents, companies that some of the parents work for, and Whole Foods which is helping with the installation costs. Their parent involvement is a real advantage for the school. Based on the feedback from the STSC Satisfaction Surveys, Edison was very happy with the program. They enjoyed Safe Routes To School and the opportunities to improve their school.

Force – The Assistant Principal, Anita Venohr has really been a champion of Safe Routes To School at Force. Force’s STSC Committee was small, but very effective. They do not have a lot of parental involvement in the school. Based on the Site Assessment(s) we learned that they were in desperate need of bike racks. They did not have any. They were able to receive two refurbished bike racks. The school has also noticed a change in the mentality of walking and biking to school, and a shift in the mindset. The PE teacher championed the health and fitness aspect of walking and biking to school as well. There is now a “coolness” or increased self esteem about walking and biking to school. The school has noticed kids continued to bike to school after the Skills On Wheels Workshop in the fall. They also used their helmets which DOF donated.

This is the school where Walk ‘N Roll Wednesdays occurred in April and May. DOF made a banner for Force saying, “Walk N’ Roll Wednesdays in April – Force Elementary. They will be able to use the banner in future years. They hung the banner outside the second story balcony in front of the school. They are hoping to continue the STSC Committee going forward and are looking for some parent involvement, which has been a challenge. Feedback from the STSC Committee members was positive.

Sabin – The STSC Committee was also on the small side, but very effective. Sabin does have a grandfather of a student who is the crossing guard. They would like additional crossing guards as well. As a result of the Site Assessment(s) and the STSC Committee they were able to change available parking zones and adjusted school loading zones. Regina C. Ochoa from Safety and Training in DPS Transportation and Kelly Colvin, from City of Denver – Senior Engineering with Denver Traffic Engineering Services walked the perimeter of the school looking at the signage. They posted new parking signs on Dartmouth indicating three different zones that the parents need to comply with:

1. No Stopping Anytime: If you stop here you are subject to getting a ticket.
2. School Bus Loading Only: If you stop here you are subject to getting a ticket.
3. Passenger Loading Only: The driver must remain in the vehicle while loading or unloading passengers.

The school put this information in their weekly newsletter on April 4th, which is sent home to parents. They also drew a map showing the perimeter of the school, the streets and parking signs. They are still working on trying to get parents on board and more involved. They would like to keep the STSC going forward.

Slavens – There is lot of parent involvement at this school. Parents also played a key role on the STSC Committee. The STSC Committee members thought highly of the educational aspect for the kids; the assemblies, the bike rodeo and the pedestrian safety

presentations. They currently do not have any Crossing Guards and are looking into other sources for this. They would like an increased awareness of parking laws along Clayton, Dallas Way and Cornell Street(s) around the school. They also would like to promote the traffic safety laws around the school. They are concerned with the safety issues that surround the perimeter of the building as well.

This is a school where 83% of the population live within a 1-mile radius of the school. Currently there are approximately 30% of the students who walk or bike to school. They have plenty of bike racks as well. There is definitely an opportunity for the school to increase the numbers of students walking and biking to school given how many students live within a 1-mile radius of Slavens. This school will continue to be active in promoting safety issues regarding crossing the street safely, as well as bicycle safety.

VI. Conclusion

The schools were very receptive to the program. The STS Committee members worked well together while addressing safety concerns and strategizing ways to increase the number of children walking/biking to school. In the spring it is a little more challenging to collect all of the post-data. May is an extremely busy time for both the parents and the teachers. We have noticed a decline in the post data of the Student Arrival & Departure Tally Sheets as well as Parent Surveys.

This School Improvement Plan can be used as a blue print going forward. This is an opportunity for the elementary schools to continue with the STS Committee and work with the local the Denver Police Department (Community Resource Officers), with the school district; DPS Transportation, Risk Management, Safety and Security.